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and in which the word "suddenly" is often substituted for "sullenly," was printed falsely in the copy before the German translator. In the second stanza, "The *struggling* moonbeam's misty light," is lost probably from some similar reason. The general effect of Wolfe's poem is exceedingly well preserved in the translation; but there are several mistakes in detail, most of which, perhaps all, arise from the translator's having used an incorrect copy of the original. The translation is printed in the *octavo* edition of "Hayward's Faust," p. 304.

The Rev. Dr. Todd, V.P., having taken the Chair, Professor Lloyd read a supplement to his paper, "On the Mutual Action of Permanent Magnets in an Observatory," printed in the Transactions, Vol. XIX. p. 159.

This supplement was immediately printed in the same volume of the Transactions.

May 10.

Sir WM. R. HAMILTON, LL.D., President, in the Chair.

Oliver Sproule, Esq., and James Thompson, Esq., were elected Members of the Academy.

A note on some new Properties of Surfaces of the second Order, by John H. Jellett, Esq., F.T.C.D., was read.

I. Let the points on the focal conic, at which the tangent is parallel to the trace of the tangent plane, be considered analogous to foci.

II. Let the axis of the surface, perpendicular to the plane of the conic, be considered analogous to the conjugate axis; then, since the square of the distance from focus to centre, in a conic, is equal to the difference between the squares of the transverse and conjugate semi-axis, we may consider, as analogous to the transverse semi-axis, the line drawn to the ex-

tremitly of the perpendicular axis from the point analogous to the focus.

III. Since the square of the semiconjugate diameter is equal to the sum of squares of semiaxes minus the square of central radius vector, let the same be supposed true of the line analogous; i. e. if Λ be the line analogous to the transverse, and B to the conjugate semi-axis, let

$$B' = \sqrt{\Lambda^2 + B^2 - \Lambda'^2}.$$

Assuming these definitions, we shall have the following theorems analogous to those *in plano*.

1. The sum or difference (according as the focal conic is perpendicular to a real or imaginary axis) of the distances from the points analogous to the foci, to the corresponding point on the surface, is equal to 2Λ .

2. The rectangle under them $= B'^2$.

3. The sine of the angle, made by either with the tangent plane, is $\frac{B}{B'}$.

4. The rectangle under the perpendiculars from these points on tangent plane $= B^2$.

5. The sine of the angle between the central radius vector and tangent plane $= \frac{\Lambda B}{\Lambda' B'}$, (Λ' being the central radius vector).

6. The portion of the normal intercepted between the surface and the plane of the focal conic is $\frac{B}{\Lambda} \cdot B'$.

7. If a plane be drawn perpendicular to the line joining points analogous to the foci, and at a distance from the centre equal to $\frac{\Lambda^2}{C}$ (C being the distance of one of the focal points from the centre), the distance of a point in the surface from the corresponding focus will be to its distance from this plane $:: C : \Lambda$.

8. Hence, given a focal conic and the perpendicular axis,

we can find points and tangent planes *ad libitum*, by the following construction :—Take in the focal conic two diametrically opposite points ; with one as centre, and twice the distance from it to the extremity of the perpendicular axis as radius, describe a sphere. Through the other point draw a plane, normal to the focal conic ; it will cut the sphere in a certain circle. Connect any point in this circle with the two points on the focal conic, and at the middle point of the line connecting it with the second point draw to it a perpendicular plane. This is a tangent plane to the surface, and the point where it cuts the first connecting line is a point on the surface.

Another mode of generating the surface is easily derivable from (7).

Mr. Petrie gave an account of some ancient Irish inscriptions of the sixth century, found in the island of Arran.

Dr. Kane made some remarks on the Theory of Types.

DONATIONS.

Transactions of the Literary and Historical Society of Quebec. Vols. I. and II. ; and Parts 1—4 of Vol. III. Presented by the Society.

Report of the Directors of the Chamber of Commerce at Manchester on Import Duties. 11th March, 1841.

Report of the Select Committee of the House of Commons on the Import Duties.

Proceedings of a Meeting of Members of the House of Commons, held at the Thatched House Tavern, St. James's-street, on the 20th February, 1841. Presented by Joseph Hume, Esq., M.P.